STS-115 Launch Weather Forecast

Vehicle: STS-115, Atlantis
Issued: 7 September 2006/1100Z (0700 EDT)
Valid: 8 September 2006 1535 – 1545Z (1135 – 1145 EDT)
Launch Weather Team: (321) 853-8484

Synoptic Discussion: Today, the Bermuda high ridge is located over South Florida, and a frontal boundary is north along the Georgia/Florida border. West-southwest flow is prevalent over Central Florida, and afternoon thunderstorms will develop in Central Florida and migrate toward the east coast. The launch time Friday occurs before thunderstorms will affect Kennedy Space Center (KSC), but there is potential the sea breeze will develop near launch time, causing concern for cumulus clouds within 10NM of complex 39B and isolated showers within 20NM of the Shuttle Landing Facility (SLF). Also, the west coast of Florida will have a potential for morning thunderstorms, and anvils from storms will advect toward the east coast of Florida. **Our primary concerns for launch are cumulus clouds within 10NM of Complex 39B and isolated showers within 20NM of the SLF, and anvils from thunderstorms along the west coast of Florida.** For a 24-hour delay, the probability of KSC weather prohibiting launch decreases as the front weakens and high pressure begins to build back into the area.

Clouds	Coverage	Bases (feet)	Tops (feet)
Cumulus	3/8 Scattered	3,000	6,000
Altostratus	2/8 Scattered	10,000	12,000
Cirrus	3/8 Scattered	25,000	26,000

Weather: None
Visibility: 7 miles
Wind: 120° @ 8 - 12 KT (60 foot pad winds)
Temperature: 84°F **RH:** 75% **Dewpoint:** 75°F

Probability of KSC weather prohibiting launch: **30%**
Probability of KSC weather prohibiting tanking: **5%**
Primary concern(s): Cumulus clouds within 10NM of 39B; showers within 20NM of the SLF, anvil clouds.

Probability of KSC weather prohibiting launch for 24-hour delay **20%**
Probability of KSC weather prohibiting tanking: **5%**
Primary concern(s): Low cloud ceiling.

Probability of KSC weather prohibiting launch for 48-hour delay **N/A**
Probability of KSC weather prohibiting tanking: **N/A**
Primary concern(s): N/A

Sunrise:	8 / 0704 EDT 9 / 0705 EDT	**Sunset:**	8 / 1936 EDT 9 / 1935 EDT		
Moonrise:	7 / 1945 EDT 8 / 2020 EDT 9 / 2054 EDT	**Moonset:**	8 / 0754 EDT 9 / 0902 EDT 10 / 1011 EDT	Illumination:	7-8 September 100% 8-9 September 97% 9-10 September 92%

Next forecast will be issued: 8 September 2006, 0700 EDT